BIRRR SUBMISSION

BETTER INTERNET FOR RURAL, REGIONAL & REMOTE AUSTRALIA

TELECOMMUNICATIONS UNIVERSAL SERVICE OBLIGATION (STANDARD TELEPHONE SERVICE – REQUIREMENTS AND CIRCUMSTANCES) AMENDMENT DETERMINATION 2026

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This submission was prepared in good faith by a voluntary team. Please address any queries to BIRRR at team@birrraus.com

Executive Summary

This consultation represents a significant moment for the future of universal voice services in rural, regional and remote (RRR) Australia. The decisions made now will shape how rural and remote Australians access essential voice communications, including emergency calling capability, during major telecommunications transitions.

Better Internet for Rural, Regional and Remote Australia (BIRRR) has heard overwhelming concern from consumers (**Appendix 4**) who feel they are being asked to accept reduced resilience, increased complexity, greater personal responsibility and additional costs as long-standing legacy voice services are withdrawn.

Many consumers no longer feel confident their lived realities, safety concerns and the importance of telecommunications redundancy are being properly recognised within current policy and migration processes. BIRRR urges the Government to genuinely listen to affected communities before further irreversible migration decisions are made.

The proposed amendments continue a broader pattern of incrementally extending and adjusting outdated telecommunications frameworks rather than progressing comprehensive Universal Service Obligation (USO) reform informed by lived experience and meaningful engagement with rural and remote Australians.

The USO exists because market-driven telecommunications outcomes alone do not adequately protect Australians living beyond major population centres. Yet major technology transitions are increasingly being progressed before clear consumer safeguards, independent oversight and management frameworks are in place for vulnerable and high-risk cohorts.

BIRRR is particularly concerned that replacement technologies are being deployed as USO-equivalent voice services before equivalent reliability, resilience and emergency communications capability have been independently demonstrated under real-world Australian operating conditions.

The current direction of reform risks replacing network-powered voice infrastructure with increasingly consumer-powered technologies that introduce new operational dependencies and risks without equivalent safeguards. While Low Earth Orbit (LEO) satellite technologies have an important role in improving connectivity options, they should complement resilient terrestrial infrastructure, not become the sole or default communications pathway for remote Australians.

A communications failure in remote Australia can have life-threatening consequences in ways not comparable to urban environments and may also impact regional businesses, agricultural operations, freight, tourism and emergency management systems that underpin national economic resilience. Yet the proposed arrangements increasingly assume consumers can independently source and maintain backup

power, manage complex telecommunications systems and absorb the operational and financial risks associated with major technology transitions.

BIRRR is also concerned Australia appears to be taking an internationally unusual approach by progressing these transitions without comprehensive backup power protections, independent oversight mechanisms or dedicated safeguards for vulnerable consumers.

Remote Australians contribute enormously to Australia's economy, food security and national resilience. Regardless of the number of affected consumers, they should not receive a lower standard of communications reliability simply because they live beyond metropolitan areas.

These reforms are not simply a telecommunications policy issue, they are also a public safety, resilience and equity issue. BIRRR urges the Government to ensure the proposed amendments strengthen, rather than diminish, the long-term resilience, reliability and safety of communications services across rural and remote Australia.

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BIRRR

Better Internet for Rural, Regional and Remote Australia (BIRRR) is an independent, volunteer-led national advocacy organisation focused on improving telecommunications outcomes for people living, travelling and working in RRR Australia. Established in 2014 by rural Australians with lived experience of poor connectivity, BIRRR works across policy, consumer advocacy and digital inclusion to ensure regional consumers can access reliable, affordable and fit-for-purpose telecommunications services.

The organisation also advocates strongly for improved “connectivity literacy”, the awareness, knowledge and confidence needed to get and stay connected to telecommunications services, recognising that telecommunications technologies, systems and consumer responsibilities are becoming increasingly complex for rural and remote Australians.

Draft Determination Proposal

The draft Telecommunications Universal Service Obligation (Standard Telephone Service – Requirements and Circumstances) Amendment Determination 2026 (the Determination) proposes extending the current USO framework beyond 1 July 2026 through a series of amendments, including:

- extending the operation of the Determination beyond its original repeal date
- updating references to align with the Telecommunications (Customer Service Guarantee) Standard 2023
- introducing a rolling definition of the Customer Service Guarantee (CSG) Standard to automatically capture future replacement standards
- expanding the definition of a “request” to include provider-driven technology migrations
- clarifying circumstances in which a provider may refuse supply of a standard telephone service
- introducing additional notification requirements relating to electricity supply obligations for consumers.

While many of the proposed amendments are presented as administrative or technical in nature, they have significant implications for rural and remote consumers as telecommunications services transition away from legacy network-powered voice technologies towards increasingly consumer-powered systems.

The amendments are also progressing in the absence of broader USO reform or any comprehensive assessment of whether existing consumer protections remain fit for purpose during major telecommunications transitions.

Although copper services currently retain some protection under the Copper Continuity Obligation (CCO) until 2032, equivalent safeguards do not apply to other

legacy voice technologies such as High Capacity Radio Concentrator (HCRC) / CAN Radio services. The planned withdrawal of these services has already highlighted broader concerns relating to resilience, redundancy, consumer protections and the suitability of replacement technologies.

The Determination should provide clear assurance that replacement technologies deliver equivalent or improved reliability, resilience and consumer protections before legacy services are withdrawn. In BIRRR's view, the proposed amendments fail to provide that assurance.

Broader Consumer Protection and Policy Concerns

BIRRR is concerned the proposed Determination amendments are progressing without broader, meaningful USO reform or adequate consideration of the impacts on vulnerable rural and remote consumers.

For rural and remote consumers, telecommunications are critical infrastructure. Many consumers operate in environments fundamentally different to metropolitan Australia, including unreliable power, geographic isolation, limited service redundancy, reduced access to face-to-face support and, in many cases, no mobile coverage at all. In these circumstances, service failures can have immediate safety, economic and social consequences.

BIRRR strongly disagrees with the statement in the draft Explanatory Statement that the Determination "does not raise any human rights issues". Access to reliable telecommunications, including the ability to contact emergency services, Triple Zero and maintain personal safety during outages and disasters, is fundamentally linked to equitable access to essential infrastructure and participation in modern society.

The consultation section of the draft Explanatory Statement remained incomplete at the time of publication, marked "To be completed" in the version circulated for comment. BIRRR therefore questions how the conclusion that "no human rights issues were raised during the consultation process" was reached, including what consultation occurred with vulnerable consumer groups and whether lived experience from remote and First Nations consumers was considered.

The proposed amendments assume consumers have:

- reliable mains power
- the financial capacity to self-generate required power and maintain backup systems
- timely access to affordable tradespeople, replacement equipment and technical support
- the technical knowledge and physical ability to manage increasingly complex telecommunications and energy systems

- sufficient telecommunications redundancy and alternative communications pathways during outages, disasters and equipment failures.

This is not the reality across many remote and First Nations communities, where geographic isolation, harsh environmental conditions, unreliable power and limited service redundancy can significantly affect communications resilience and emergency connectivity.

The amendments risk creating disproportionate impacts for consumers living in remote, off-grid and disaster-prone areas, where those facing the greatest geographic disadvantage are also expected to carry the greatest operational and financial burden to remain connected.

Vulnerable consumers should not be expected to absorb the operational, financial and safety risks associated with telecommunications transitions without equivalent protections and support mechanisms. Access to essential voice services and Triple Zero should not depend on a consumer's financial capacity or connectivity literacy.

BIRRR considers the proposed amendments may engage Australia's obligations under the International Covenant on Civil and Political Rights (ICCPR), including Article 6 relating to the protection of life and Article 2 relating to non-discrimination and equal protection under the law, particularly where vulnerable rural and remote consumers may face reduced access to emergency communications and essential services compared with metropolitan consumers.

A universal service framework that fails to properly consider consumers without access to mains power, unreliable rural electricity, low-income households, communities with no mobile coverage and those reliant on prepaid electricity systems risks embedding inequity into access to essential communications services.

BIRRR also has significant concerns regarding the Government's consultation processes. Current consultation frameworks do not appear to meaningfully reflect lived experience, consumer feedback or the findings of major reviews, including the 2024 Regional Telecommunications Independent Review Committee (RTIRC).

Many consumer advocacy organisations participating in these processes are volunteer-led and resource constrained. Despite this, consultations continue to rely heavily on short timeframes, lengthy written submissions and limited transparency regarding how feedback is assessed or incorporated into Government decision-making. This contributes to growing consultation and submission fatigue across the RRR advocacy sector and limits meaningful engagement with consumers most impacted by legislative and regulatory change.

Over many years, BIRRR has provided Government and regulators with evidence of misinformation, mis-selling, anti-competitive conduct and poor migration support processes affecting rural and remote consumers. Too often these issues are

dismissed as isolated incidents rather than recognised as indicators of broader systemic problems.

Additionally, systemic harms experienced across RRR Australia are often obscured by reliance on aggregated national complaint data. Smaller populations generate lower complaint volumes, meaning regional issues may not materially influence reporting, regulatory priorities or policy responses.

The Government has had sufficient time to progress meaningful USO reform. Instead, the current approach continues to rely on incremental amendments to outdated frameworks that no longer reflect how telecommunications services are delivered, used and relied upon, particularly in remote Australia.

Without comprehensive, technology-neutral USO reform delivering enforceable consumer protections, clear accountability and safeguards reflecting modern telecommunications environments, the gap between regulatory protections and real-world service delivery will continue to widen, with direct implications for safety, emergency communications and equitable access to essential services.

Government, regulators and industry must place greater weight on lived experience, improve transparency and accountability within consultation processes, and ensure rural and remote consumer outcomes remain central to telecommunications policy and reform.

Amendments 1 & 9 - Definition & Repeal

Amendment 1 Subsection 4(1) (definition of CSG Standard)
Amendment 9 Section 9 (Repeal)

The proposed amendments update the definition of the CSG Standard to reference the Telecommunications (Customer Service Guarantee) Standard 2023 and introduce a rolling definition that would automatically capture any future replacement standard made under section 115 of the Act.

The amendments also remove the current repeal date of 1 July 2026, allowing the Determination to continue indefinitely for as long as a CSG Standard remains in force.

While the explanatory materials state these changes are intended to align the Determination with the operation of the CSG framework, BIRRR is concerned the combined effect is to create a self-perpetuating instrument, allowing future changes to automatically flow through to the Determination without a guaranteed review point or dedicated consultation process.

The original sunset date provided an important safeguard by requiring periodic review of whether the Determination remained fit for purpose. Removing that safeguard is particularly concerning given the major telecommunications transitions currently

underway across RRR Australia, including Telstra's planned withdrawal of CAN Radio/HCRC services by November 2027, and increasing reliance on technologies with fundamentally different operational characteristics, resilience profiles and consumer impacts.

BIRRR considers removal of the repeal date to be poorly timed. By the proposed CAN Radio exit date, the regional telecommunications landscape will have changed substantially, yet the Determination may continue operating indefinitely without any mandated reassessment of whether the framework remains appropriate for emerging technologies, evolving consumer risks and modern service delivery models.

BIRRR is also concerned telecommunications migrations continue to proceed before comprehensive consumer protection and transition management frameworks are in place, and before redundancy options, including the rollout of nbn LEO services, are available. While some migrations may involve relatively small consumer cohorts, the cumulative impact of multiple concurrent technology transitions across RRR Australia is significant.

This is particularly concerning where consumers already reliant on Starlink broadband services may ultimately become dependent on a single underlying platform for both broadband and voice communications, reducing resilience and service redundancy.

Amendment 2 - Expanded Definition of "Request"

Amendment 2 Subsection 4(1) (definition of request)

Amendment 2 expands the definition of "request" to include both consumer-initiated requests and "deemed requests" triggered when a service is withdrawn, replaced or ceased.

BIRRR acknowledges this amendment more accurately reflects the reality of current telecommunications migrations, where consumers are increasingly required to transition to alternative technologies due to provider-driven changes rather than voluntary consumer choice.

However, the amendment does not introduce corresponding safeguards to ensure replacement services provide equivalent or suitable outcomes, nor does it ensure consumers receive clear information regarding their rights during technology transitions.

Of particular concern is the interaction between the deemed request provision and the refusal grounds in subsection 7(4). Under the proposed framework, when a legacy service is withdrawn, a deemed request for a replacement service is automatically triggered. This may then activate refusal provisions, including those relating to power supply, without adequate consideration of a consumer's vulnerability or individual circumstances.

In practice, this creates a pathway where a provider can withdraw an existing service, deem a new request and subsequently refuse that request because the consumer cannot meet the operational requirements of the replacement technology. The result may be that a consumer who previously had access to a functioning standard telephone service is left without any service despite the ongoing existence of the USO.

CASE STUDY 1: GEORGE

George, a Priority Assist customer, lives in a remote area of the Northern Territory and has been notified that his existing CAN Radio service will be withdrawn. Under the proposed Determination amendments George will be automatically deemed to have requested a replacement service. The proposed replacement, Telstra's Starlink Voice Service, requires continuous mains power. George and his family live off-grid, with no access to mains power, they rely on a self-managed solar and battery system and do not have the capacity or finances to upgrade or increase the load. Under the amended Determination, Telstra can refuse to supply the new service on this basis. Thus, George, who previously had a functioning voice service, is left without access.

BIRRR is increasingly concerned about misinformation and inconsistent advice being provided to consumers during telecommunications migrations.

Many consumers are not informed of their rights to a standard telephone service under existing USO and CCO protections. Consumers have reported being incorrectly advised that:

- "copper lines are being removed"
- "landlines are no longer available"
- "the government is turning off all copper lines".

These are not isolated incidents. BIRRR has documented numerous cases where consumers were provided inaccurate or incomplete information during telecommunications migrations by Retail Service Providers (RSPs), wholesalers and, in many cases, Telstra as the USO provider.

BIRRR has also documented cases where consumers were incorrectly advised that migration to Voice over Internet Protocol (VoIP) services was mandatory following wholesale provider exits and Public Switched Telephone Network (PSTN) transition processes, despite ongoing USO and CCO protections remaining available.

A detailed case study regarding misinformation and consumer confusion arising from the Vocus wholesale copper exit and SkyMesh migration processes is included at **Appendix 2**. In that case, the consumer was advised the PSTN network was being permanently shut down and directed towards a business-grade VoIP solution.

These cases demonstrate broader concerns regarding misinformation, inconsistent migration advice and inadequate communication of consumer rights during telecommunications transitions.

CASE STUDY 3: NOELINE

Noeline is 78 years old and lives in a remote area of northern New South Wales with no mobile coverage. Her property relies on nbn Sky Muster, which is affected by heavy rain and cloud. During previous flood events she has been isolated without power for several days and relied entirely on her copper landline for emergency communications.

In January 2026, when attempting to transfer her copper landline service from Southern Phone to Telstra, Noeline repeatedly sought assurance from Telstra that her existing copper connection would remain in place. Instead, she was repeatedly directed towards VoIP alternatives she did not consider reliable in her circumstances. During multiple calls with Telstra, Noeline was incorrectly advised that:

- *"the government is turning off all copper lines"*
- *she would need to disconnect her existing service before assistance could be provided*
- *she may lose her longstanding phone number*

In February, after being transferred multiple times and spending more than an hour on the phone repeating her situation, Noeline ended the call in tears. Noeline escalated her issues with her MP, the Hon. Justine Elliot, however, was still unable to obtain assistance.

Following escalation by BIRRR, Telstra later confirmed that Noeline was in fact able to retain her existing copper-based service and number.

On 2 December 2025, Telstra provided BIRRR with a fact sheet intended to clarify the SkyMesh PSTN exit process and availability of replacement services. However, BIRRR raised concerns that the material did not adequately address broader industry misinformation, failed to reference CCO protections, and did not clearly explain consumers' rights regarding PSTN retention, number portability and ongoing USO protections.

Between December 2025 and May 2026, BIRRR requested multiple amendments and clarifications as additional migration issues emerged across multiple RSPs. During this period, BIRRR also met with the Department of Infrastructure, Transport, Regional Development, Communications and the Arts (DITRDCA) regarding misinformation, inconsistent migration advice and the impacts of Vocus' wholesale copper exits on rural and remote consumers. To date, the amended fact sheet has not been provided.

Additional concerns relating to inconsistent Priority Assistance advice and backup power eligibility during the 3G shutdown and migration of USO voice services are outlined in **Appendix 3**.

These cases highlight broader concerns regarding the way telecommunications migrations are communicated and managed, particularly for rural and remote consumers reliant on legacy voice services. They also raise a broader question: who is responsible for ensuring consumers are aware of their rights and adequately protected during telecommunications technology transitions?

BIRRR is represented on the Telstra CAN Radio & ADSL Migration Reference Group and has consistently raised concerns regarding the adequacy and accuracy of migration communications, particularly in relation to backup power requirements and Priority Assistance arrangements.

Throughout 2026, BIRRR advised Telstra that directing remote consumers to electricity providers regarding backup power arrangements was unlikely to provide practical assistance in many rural and remote environments. Despite this feedback, the advice remains publicly available in Telstra migration materials[1].

BIRRR is concerned that the expanded definition of "request" formalises provider-driven migration processes without introducing equivalent obligations to adequately inform and protect consumers during transitions to replacement services. In the absence of independent, trusted advice, consumers are often reliant on providers with clear commercial incentives and sales-driven migration processes.

Many consumers are only becoming aware of the operational, power and backup requirements associated with replacement technologies during active migration processes, often after legacy services have already been scheduled for withdrawal.

Without stronger obligations on providers to proactively inform and support consumers during technology transitions, there is a significant risk consumers may lose access to reliable voice services not because no service exists, but because they were not adequately informed of their rights or available protections.

Amendments 2,4,5,6,7 & 8

Amendment 2 Sub-subparagraph 7(1)(a)(iv)(B)
Amendment 4 Subparagraph 7(4)(h)(ii)
Amendment 5 Subparagraph 7(4)(h)(iii)
Amendment 6 Subsection 7(5)
Amendment 7 Paragraph 7(5)(a)
Amendment 8 Paragraphs 7(5) (b)

The above amendments update references within the Determination to align with the Telecommunications (Customer Service Guarantee) Standard 2023.

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1 *https://www.telstra.com.au/content/dam/tcom/dynamic-media-projects/luke-campbell/CAN-Radio-Fact-Sheet-Final-v2-A4-26.03.26.pdf*

While largely consequential in nature, these amendments further embed the Determination's reliance on the CSG framework despite ongoing concerns regarding whether existing consumer protections remain fit for purpose for RRR consumers.

As outlined in BIRRR's submission on the extension of the CSG instruments, continued reliance on incremental amendments without broader reform risks perpetuating regulatory settings that no longer reflect how telecommunications services are delivered or relied upon in practice.

BIRRR is particularly concerned that the proposed rolling definition of the CSG Standard may allow future amendments or replacement standards to automatically flow through to the Determination without clear review, scrutiny or dedicated consultation.

Some amendments also replace precise section references with broader structural references, including references to "Part 3" of the CSG Standard. In BIRRR's view, this reduces clarity and transparency and may create uncertainty regarding how provisions are interpreted and applied.

This is particularly significant because Part 3 of the CSG Standard includes exemptions relating to circumstances beyond the control of the carriage service provider, including situations where Commonwealth, State or Territory laws may prevent compliance with performance standards. Broader references to Part 3 may increase reliance on such exemptions and create greater scope for obligations to be interpreted inconsistently or avoided in practice.

For rural and remote consumers, who often have limited telecommunications alternatives, reduced clarity and expanded reliance on exemptions may weaken accountability and diminish practical consumer protections.

BIRRR is also concerned the consultation materials did not clearly identify or explain wording changes between the superseded and current CSG Standards. As a volunteer-led consumer advocacy organisation, BIRRR invested significant time locating, comparing and interpreting the relevant legislative instruments in order to assess the practical implications for consumers.

Given the complexity of the legislative framework and the importance of these protections for rural and remote consumers, greater transparency and clearer explanatory materials are needed. Consumer protection instruments should prioritise clarity, precision and regular review, particularly where they underpin access to essential communications services.

Amendment 3 - Power Requirements and Risk of Exclusion

Amendment 3 Paragraph 7(4)(a)

Amendment 3 introduces a revised provision allowing the primary universal service provider, Telstra, to refuse supply of a standard telephone service where a consumer does not provide, at their own expense, an electricity supply sufficient to support the technology used to deliver the service, subject to written notice requirements.

BIRRR strongly opposes this amendment.

Historically, standard telephone services delivered under the USO, particularly legacy technologies such as copper and CAN Radio, were network powered. Consumers relied on these services continuing to function during local power outages, providing a dependable means of communication, including access to emergency services and Triple Zero (000).

The proposed amendment represents a significant shift in responsibility by transferring the burden of powering essential communications infrastructure from the network provider to the consumer, without corresponding safeguards, funding arrangements or support mechanisms for vulnerable consumers unable to meet these requirements.

This is particularly concerning given Telstra's own acknowledgement of power reliability challenges in rural and remote Australia. In its submission to the 2024 RTIRC[2], Telstra identified improving power resilience as a key priority and acknowledged the need to continue addressing power reliability issues as reliance on telecommunications services increases across RRR Australia.

BIRRR considers it inconsistent for the Government and Telstra to simultaneously acknowledge ongoing regional power reliability challenges while progressing technology transitions that increase dependency on consumer-supplied power for access to essential voice services.

Under the proposed framework, consumers may effectively be required to fund, operate and maintain the power systems necessary to access a standard telephone service, even when they live in areas characterised by unreliable electricity, prolonged outages, geographic isolation, harsh environmental conditions and limited access to technical support or alternative communications pathways.

Furthermore, there is no proposed management framework or dedicated support mechanism for vulnerable consumers, including Priority Assist customers, First Nations consumers, consumers living off-grid, consumers in areas with no mobile coverage, or those reliant on stand-alone power systems.

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[2] *https://www.infrastructure.gov.au/sites/default/files/documents/rtirc-2024-telstra-submission.pdf*

Previous Migrations

During previous telecommunications migrations, including the transition of some consumers from CAN Radio services to Next Generation Wireless Loop (NGWL) services in 2008–2009, power reliability was recognised as a significant issue.

To support continuity of service during outages, Telstra provided free battery backup units to consumers on request and Uninterruptible Power Supply (UPS) devices to Priority Assist customers at no cost.

This reflected an important principle: where replacement telecommunications technologies introduced additional power dependency, corresponding safeguards and support mechanisms were required to help maintain access to voice services during outages and emergency situations.

Power reliability was considered a serious enough concern during these earlier migrations to justify provider-supported backup power solutions, and it remains a serious concern today. In many rural and remote areas, mains power reliability has not improved, remains highly variable and, in some locations, is unavailable altogether.

BIRRR considers the same principle should apply to current and future telecommunications migrations, particularly where replacement technologies increase reliance on consumer-supplied power for access to essential voice services.

Vulnerable consumers, including Priority Assist customers, First Nations consumers, consumers living off-grid and consumers in areas with no mobile coverage, should not be left worse off following migration from legacy network-powered technologies without equivalent safeguards, resilience measures and support arrangements being in place.

Unreliable Power in Rural and Remote Australia

For many rural and remote consumers, reliable electricity cannot be assumed. Frequent and prolonged outages, unreliable Single-Wire Earth Return (SWER) networks, severe weather events and delayed restoration timeframes remain common realities across many parts of regional Australia.

As telecommunications services become increasingly consumer-powered, these outages may also result in the loss of voice services and emergency communications, including access to Triple Zero.

CASE STUDY 4: POWER OUTAGES – WESTERN AUSTRALIA

On 14 December 2025, Telstra issued a network disruption notice relating to widespread power failures across Geraldton and surrounding regions in Western Australia following extensive damage to local power infrastructure.

According to Telstra, the outage resulted in a number of communities being isolated and residents unable to contact Triple Zero.

Telstra further advised there had been a loss of AC mains power to 58 network sites and that restoration activities were dependent on repairs to damaged electricity infrastructure.

BIRRR understands that in some affected areas consumers were without power for more than seven days. Historically, many consumers in these communities relied on network-powered landline services that could continue operating during extended outages. Increasing migration towards power-dependent technologies means that, in many cases, consumers may now lose access to both their telecommunications service and their ability to contact emergency services during prolonged power failures.

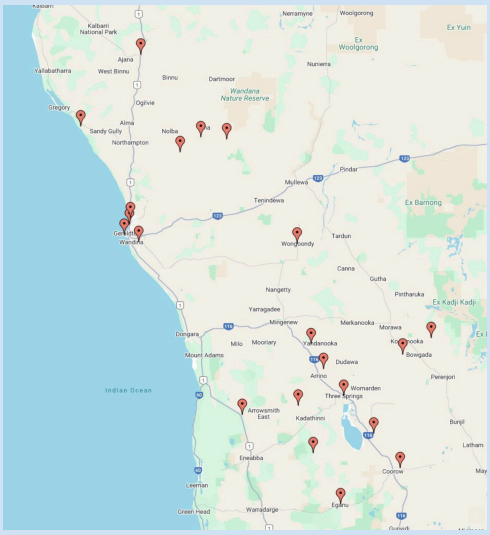

Figure 1: Locations of power failure affecting Telecommunications Services, W.A. December 2025

While BIRRR acknowledges telecommunications providers are not electricity providers, we remain deeply concerned about the continued transition towards power-dependent communications systems before equivalent resilience, redundancy and backup arrangements are in place.

Consumers, particularly those with no mobile coverage, unreliable power or stand-alone power systems, should not lose access to essential voice services or Triple Zero during extended outages simply because replacement technologies require continuous premises power to operate.

BIRRR considers telecommunications providers should be required to ensure appropriate resilience and backup capability exists where replacement technologies introduce increased reliance on consumer-supplied power and reduced service redundancy.

CASE STUDY 5: KRISTY

During the 2021 RTIRC online consultation process, Kristy, BIRRR Co-founder and Deputy Chair of the 2021 RTIRC, recorded 26 separate power outages over the three-month consultation period at her property in Central Western Queensland, approximately one hour north of Alpha.

Despite having invested in a diesel generator, at their own expense, to maintain connectivity and communications during outages, power interruptions regularly required manual troubleshooting and intervention, including physically attending the generator and, on occasions, jump-starting equipment to restore power and telecommunications services.

As Kristy writes this submission, the property is again experiencing an extended power outage of approximately eight hours, the third significant outage in the past three weeks.

BIRRR has previously documented numerous cases where rural consumers relying on generators or stand-alone power systems still experienced significant operational challenges maintaining telecommunications during outages, including prolonged interruptions requiring manual troubleshooting and physical intervention to restore services. These case studies demonstrate that unreliable power remains a reality for many rural and remote consumers. While some households attempt to mitigate these risks through generators, batteries or backup systems, these solutions are expensive, complex and not achievable for all consumers.

Off-Grid Consumers and Stand-Alone Power Systems

A significant number of remote consumers do not have access to mains power and instead rely on stand-alone power systems, including solar, battery and generator configurations.

For these consumers, power systems are independently funded, operated and maintained. Even relatively small increases in electrical load may require costly upgrades to solar arrays, batteries, inverters or generator capacity. Diesel costs, equipment lead times and limited access to qualified electricians or technicians can further compound these challenges in remote areas.

The additional power requirements associated with replacement telecommunications technologies are therefore highly significant. BIRRR understands the proposed Telstra Starlink Voice service may consume approximately 1.6kWh to 2.2kWh per day when operating continuously, representing a substantial additional load for many smaller stand-alone power systems.

Importantly, not all stand-alone power systems operate continuously. Some consumers intentionally shut down systems overnight or during low-generation periods to conserve power, manage battery capacity or reduce operating costs.

CASE STUDY 6: PETER

Peter lives in remote Far-northern Queensland near Richmond and was contacted by Telstra in May 2026 regarding the migration of his existing CAN Radio landline service.

Peter's property does not have access to mains power and instead relies on a small standalone solar power system. The property also has no alternative telecommunications services available.

During discussions regarding the proposed replacement service, Peter raised concerns about the additional power requirements associated with the replacement technology and explained that he was not in a financial position to expand or upgrade his solar power system to support increased electricity demand.

Peter was advised that the proposed replacement service would require a Starlink terminal and modem operating continuously, with indicative power consumption information provided by Telstra. Peter was further advised that Telstra could not provide or manage the required power supply and that if sufficient power could not be provided by the disconnection date, the service would be disconnected.

Peter was also advised to "just turn it off if it is not needed". When he stated this would leave him vulnerable, Peter was told to contact the TIO.

In practice, maintaining sufficient electricity for telecommunications equipment is not always simple, affordable or achievable. During emergencies or severe weather events, consumers may be required to manually start generators, restore power systems or wait for telecommunications equipment to reconnect before being able to access voice services or contact Triple Zero.

These delays may occur during critical incidents where immediate communications access is essential and may also expose consumers to additional physical risks during storms, flooding or other hazardous conditions.

Cost and Affordability

BIRRR is concerned about the significant costs these changes may impose on rural and remote consumers.

For households operating stand-alone power systems, replacement telecommunications technologies may require costly upgrades to batteries, inverters, solar capacity or generator systems to support increased electricity demand. Ongoing costs may also increase through higher diesel usage, battery replacement, maintenance requirements and increased electricity consumption.

BIRRR estimates for consumers on mains power the additional power requirements could add and extra $18 to $20 per month[3] to electricity bills, depending on local electricity pricing and the type of replacement technology used.

In remote areas, these costs are often compounded by technician call-out fees, electrician travel costs and limited access to qualified tradespeople.

Even for consumers connected to the electricity grid, additional telecommunications equipment and continuous power requirements may increase household electricity costs. During a cost-of-living crisis, these additional expenses may create a significant barrier to accessing and maintaining a standard telephone service, particularly for elderly, low-income, First Nations and remote consumers.

BIRRR is also concerned about the interaction between telecommunications resilience and energy insecurity in remote communities.

In some remote First Nations communities, prepaid electricity systems increasingly rely on internet connectivity, online portals, apps, telecommunications services or local retailers to purchase electricity credit. Where telecommunications services fail, consumers may be unable to purchase electricity credit, potentially resulting in further loss of power and communications during emergencies or prolonged outages.

This creates a compounding risk where the loss of telecommunications may contribute to further electricity disruption, which may then result in additional loss of communications capability.

Under the proposed framework, access to essential voice services increasingly becomes contingent on a consumer's financial capacity to fund and maintain the supporting power infrastructure required for replacement technologies.

Complexity and Consumer Burden

The proposed amendment fails to adequately recognise the complexity involved in operating and maintaining stand-alone power systems, particularly in remote areas where consumers may have limited technical support and no alternative communications pathways.

For many remote consumers, stand-alone power systems underpin critical household infrastructure. Under increasingly power-dependent telecommunications models, a power system failure may also result in a complete loss of communications.

This creates significant safety risks, particularly in remote locations where consumers may have no mobile coverage, nearby neighbours or rapid access to assistance. In many cases, a power system failure may impact not only telecommunications

[3] *Electricity @ $0.30/kWh. Starlink consume 2kWh per day therefore 30 x 2 x $0.30 = $18.00*

services, but also refrigeration, water pumps, medical equipment, lighting and other essential infrastructure.

Without communications, consumers may be unable to contact Triple Zero, seek technical assistance, coordinate repairs, notify support networks or access emergency information during natural disasters or prolonged outages.

Under previous network-powered technologies such as CAN Radio, consumers were often still able to access voice communications during local power failures. The proposed amendment risks removing this critical layer of resilience without equivalent safeguards, redundancy or backup arrangements being in place.

CASE STUDY 7: CHANDRA

Following migration from a CAN Radio service to a Telstra Starlink voice Service, Chandra, who lives in remote Western Australia, experienced a stand-alone power system failure while her partner was away.

Under her previous CAN Radio service, which did not rely on mains power at the premises, she would still have been able to contact her partner, support or emergency services. However, because the replacement technology required power at the premises, the power system failure also resulted in a complete loss of communications.

Without telecommunications access, Chandra could not call Triple Zero, seek assistance, or access online troubleshooting information relating to the power system. The loss of power therefore directly resulted in the loss of communications.

This case highlights how increasingly power-dependent telecommunications models may create additional operational and safety risks for remote consumers, particularly where no alternative communications pathways exist.

Lack of Clarity Around "Reasonable Timeframes"

BIRRR notes the requirement for Telstra to provide an "indicative reasonable timeframe" for a consumer to obtain sufficient electricity is vague and lacks clear definition.

The proposed Determination provides no guidance regarding:

- what constitutes a "reasonable timeframe"
- who determines what is considered reasonable
- how individual remote circumstances will be assessed
- whether affordability, remoteness, vulnerability and access to tradespeople or equipment will be taken into account.

BIRRR is deeply concerned the proposed amendment may result in vulnerable remote consumers, those most reliant on USO protections, being left without access to a

standard telephone service because they are unable to meet the operational, technical or financial requirements of replacement technologies.

While BIRRR acknowledges newer telecommunications technologies may require power at the premises, the proposed amendment shifts responsibility for powering essential communications infrastructure from the provider to the consumer without equivalent safeguards, funding arrangements or resilience measures being in place.

BIRRR is also concerned that migrations to power-dependent replacement technologies are already progressing despite the proposed amendments and associated consumer safeguards still being subject to consultation and approval processes.

In BIRRR's view, telecommunications resilience and access to essential voice services should not depend on a consumer's financial capacity, physical capability or technical expertise to maintain supporting power infrastructure, particularly in remote areas with unreliable power, limited technical support and no alternative communications pathways.

The Need for Independent Oversight and Monitoring

BIRRR believes the current amendments create significant risks for rural and remote consumers' continued access to essential telecommunications services.

One of the clearest lessons from the NGWL migration is that telecommunications transitions in rural and remote Australia cannot rely solely on carrier-led processes and goodwill. Despite repeated assurances that lessons would be learned, BIRRR continues to see many of the same issues repeated across technology transitions, including inconsistent consumer information, inadequate migration support, limited transparency and insufficient consumer protections.

Of greatest concern is the absence of any independent oversight or monitoring of consumer outcomes during and after migrations. This is particularly alarming where services fall under the USO, for which Telstra currently receives more than $230 million[4] annually to deliver.

At present, there is no independent mechanism to assess:

- whether migrated consumers are receiving an equivalent or better service
- whether consumers are being adequately supported through transitions
- whether vulnerable consumers are being unintentionally excluded from access to voice services

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4 *https://www.infrastructure.gov.au/sites/default/files/documents/funding-of-universal-telecommunications-services-april-2024.pdf*

- whether consumers are losing resilience, redundancy or access to emergency communications following migration.

BIRRR and other regional stakeholders repeatedly raised concerns regarding the NGWL migration and Vocus wholesale copper exit with DITRDCA, the Australian Communications and Media Authority (ACMA), the Australian Competition and Consumer Commission (ACCC), the Telecommunications Industry Ombudsman (TIO) and Ministerial offices. However, from BIRRR's perspective, there has been limited intervention, little public reporting on migration outcomes and insufficient collection of consumer harm data.

Figures provided by Telstra CEO Vicki Brady in correspondence[5] to BIRRR dated 24 February 2025 are particularly significant. Of 6,373 active NGWL services at the commencement of the migration process, 2,328 services were disconnected rather than migrated to another Telstra-supplied service. This represents an extraordinarily high attrition rate for a migration involving USO voice services.

BIRRR is concerned many consumers did not actively choose to abandon their voice service because it was no longer required. Rather, many appear to have disconnected due to migration processes becoming overly complex, confusing or inaccessible. Consumers reported inconsistent advice, difficulty accessing support, unresolved account authority issues, uncertainty regarding replacement technologies and concerns regarding power requirements and service reliability.

Technology migrations involving universal services should not be treated as simple product upgrades. In rural and remote Australia, they are fundamentally matters of consumer protection, resilience and public safety.

BIRRR's concerns are reflected in the findings of the 2024 RTIRC, which recognised that telecommunications transitions create disproportionate impacts for rural, regional and remote Australians.

The RTIRC stated:

> "*The concern is not just about adopting new technology but about maintaining access to reliable services that meet their unique needs*."[6]

[5] *Correspondence from Vicki Brady, Chief Executive Officer, Telstra, to BIRRR regarding 3G shutdown concerns and NGWL migration issues, dated 24 February 2025.*

[6] *https://www.infrastructure.gov.au/sites/default/files/documents/2024-regional-telecommunications-review.pdf*

The Committee also recognised the need for significantly stronger transition oversight and consumer protections, concluding that:

> "*every future telecommunications migration – whether it involves voice, mobile or broadband services – should be accompanied by comprehensive government oversight and planning.*"[7]

Importantly, the RTIRC ultimately made Recommendation 11:

> "*The Committee recommends comprehensive independent monitoring and public reporting during large-scale telecommunications transitions, such as mobile technology switch offs and the migrations required for modernising the USO. The ACMA could be well-placed to perform this role.*"[8]

BIRRR strongly supports this recommendation and believes the proposed Determination amendments fail to adequately reflect the lessons from recent telecommunications migrations or the recommendations of the RTIRC.

International Approaches to Power Resilience and Universal Voice Services

BIRRR is concerned Australia appears to be taking an internationally unusual approach to the transition of universal voice services, particularly in relation to consumer power obligations and increasing reliance on power-dependent technologies.

Historically, many Australian USO voice services, including copper, CAN Radio and some NGWL services, were network powered and capable of operating during local power outages. By comparison, many replacement technologies now rely on continuous consumer-supplied power, in-premises equipment and local networking infrastructure.

Across comparable international jurisdictions, regulators and governments have generally recognised that transitioning consumers away from network-powered voice services creates additional risks during outages and emergencies. As a result, many countries have introduced consumer protection measures relating to backup power, emergency calling continuity and migration safeguards.

[7] *https://www.infrastructure.gov.au/sites/default/files/documents/2024-regional-telecommunications-review.pdf*
[8] *https://www.infrastructure.gov.au/sites/default/files/documents/2024-regional-telecommunications-review.pdf*

Country	Approach to Backup Power & Universal Voice	Refusal of Service	Consumer Protection Measures
Australia (Proposed)	Increasing reliance on consumer-supplied power for replacement voice technologies	Proposed amendments may permit refusal where adequate power is unavailable	No mandated national backup power standard for replacement USO voice services
New Zealand	Backup support provided for vulnerable consumers during copper withdrawal	Copper withdrawal linked to consumer protection obligations	111 Contact Code requires free backup solutions for eligible vulnerable consumers
United Kingdom	Backup power obligations introduced during Digital Voice migration	Migration rollout paused following emergency calling concerns	Providers required to support vulnerable consumers during outages
Canada	Public funding and infrastructure support for remote connectivity	Universal service obligations supported through subsidy frameworks	Broadband Fund supports remote infrastructure resilience
United States	Subsidy-based universal service support in high-cost areas	Universal service funding offsets remote service delivery costs	Lifeline and High Cost programs support vulnerable and remote consumers

Figure 2: International Approaches to Universal Voice Services.

For example, New Zealand's 111 Contact Code[9] requires providers to supply vulnerable consumers transitioning away from copper services with backup devices capable of maintaining emergency calling capability during outages at no cost to the consumer. Providers must also clearly inform consumers about outage risks and available support arrangements. Importantly, New Zealand did not allow copper withdrawal processes to proceed until these consumer protection measures were operational.

Similarly, the United Kingdom (UK) introduced minimum backup power obligations during its Digital Voice migration process[10], with providers supplying battery backup solutions to vulnerable consumers. The UK rollout itself was paused following incidents where consumers lost access to emergency calling capability after migration to power-dependent services[11].

Other jurisdictions, including Japan and Singapore, have also incorporated backup power arrangements into fibre voice transition frameworks to maintain continuity of voice services during outages.

Canada and the United States (US) have similarly recognised that maintaining universal telecommunications access in remote areas may require additional funding, infrastructure support and consumer protections, rather than placing the full operational and financial burden on individual consumers.

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9 *https://www.comcom.govt.nz/regulated-industries/telecommunications/telecommunications-for-consumers/commission-111-contact-code*

10 *https://www.ofcom.org.uk/phones-and-broadband/service-quality/phones-and-broadband/keeping-landlines-working-during-power-cuts*

11 *https://www.gov.uk/government/news/telecoms-firms-agree-new-measures-to-protect-vulnerable-customers*

By contrast, Australia currently has:

- no mandated backup power standard for replacement USO voice services
- no guaranteed consumer backup support framework
- no minimum outage resilience requirements for consumer premises equipment
- no mandated continuity standard for emergency calling during local power failures.

The proposed amendments would allow Telstra to refuse supply of a standard telephone service where a consumer cannot provide or maintain sufficient power to support the replacement technology.

This is particularly concerning in the Australian context given the country's vast geographic footprint, dispersed population, long distances from emergency services and extensive areas with limited telecommunications redundancy.

Australia also differs from many comparable jurisdictions due to the relatively limited extent of mobile coverage across the national landmass. While mobile services are often assumed to provide an alternative communications pathway during outages, recent ACMA mobile coverage mapping reforms reinforce that significantly less of Australia has reliable or usable mobile coverage than previous mapping approaches suggested.

For many rural and remote consumers, there may therefore be no practical fallback communications option if power-dependent broadband or voice services fail. In BIRRR's view, these realities have not been adequately recognised within the proposed Determination amendments.

International Approaches to LEO Satellite Voice Services

BIRRR is concerned Australia appears to be taking an internationally unusual approach by progressing consumer LEO satellite voice services as primary replacement technologies for legacy USO voice services before equivalent reliability, resilience and consumer outcomes have been independently demonstrated in real-world operating conditions.

BIRRR is not aware of any comparable jurisdiction, including New Zealand, the UK, the US, Canada, Japan or European Union member states, that has formally adopted a residential Ku/Ka-band LEO satellite voice product as a primary universal service voice replacement technology for remote and vulnerable consumers.

Internationally, LEO satellite technologies are more commonly treated as supplemental connectivity options, resilience layers or emerging technologies still under assessment, rather than primary universal voice infrastructure.

In jurisdictions such as the UK and New Zealand, replacement universal voice solutions have generally remained terrestrially based and accompanied by consumer protection obligations, including backup power requirements during outages.

Similarly, the US Federal Communications Commission (FCC) declined to award Starlink Rural Digital Opportunity Fund subsidies after determining the company had not sufficiently demonstrated its ability to reliably meet the required long-term service obligations and performance standards associated with the program[12].

International assessment of universal voice service suitability has generally relied on validated subjective or objective testing methodologies, such as ITU-T P.800, PESQ (P.862) or POLQA (P.863), together with demonstrated performance against published availability and reliability standards benchmarked against existing voice services.

BIRRR is concerned Australia is progressing major telecommunications migrations onto LEO satellite voice technologies ahead of the independent testing, long-term performance data and regulatory safeguards that would ordinarily accompany such a significant shift in universal service delivery.

These concerns are amplified by the fact LEO satellite voice services:

- rely on consumer-supplied power
- remain susceptible to weather impacts, congestion, solar events and atmospheric interference
- replace legacy network-powered services with fundamentally different operational characteristics
- currently lack dedicated voice prioritisation capabilities comparable to traditional carrier-managed voice networks.

BIRRR does not oppose LEO satellite technologies as part of the broader telecommunications mix. These technologies clearly have an important role in improving connectivity options for many rural and remote consumers.

However, BIRRR strongly opposes the designation of these technologies as primary USO-equivalent voice replacement services before equivalent reliability, resilience and consumer protections have been independently demonstrated and appropriate safeguards established.

In BIRRR's view, the current approach risks turning rural and remote consumers into participants in a large-scale live technology transition experiment without the protections, transparency and oversight that should accompany essential communications infrastructure.

[12] *https://techcrunch.com/2023/12/12/fcc-issues-final-denial-of-885m-starlink-subsidy/?*

Lack of Independent, Trusted Consumer Support

BIRRR is deeply concerned these significant telecommunications transitions are occurring at the same time the Federal Government has failed to provide ongoing funding for the Regional Tech Hub beyond June 2026.

The Regional Tech Hub has played a critical role in helping RRR consumers navigate an increasingly complex telecommunications environment by providing independent, practical and trusted advice on connectivity technologies, troubleshooting, service selection and consumer rights.

As consumers are transitioned onto more complex and power-dependent technologies, the need for independent consumer support is increasing, not decreasing.

Without adequately funded independent support services, consumers will become increasingly reliant on telecommunications providers and sales-driven migration processes for information regarding essential communications services.

This is particularly concerning given the significant operational differences between legacy and replacement technologies, together with increasing evidence of misinformation and inconsistent advice during migration processes.

BIRRR considers independent consumer support services to be an essential safeguard during major telecommunications transitions and a critical component of any broader universal service and consumer protection framework.

Without trusted independent advice and advocacy, there is a significant risk rural and remote consumers will be left to navigate increasingly complex and consequential technology decisions without adequate support to understand their rights, protections and available options.

Broader Issues Not Addressed by the Amendment

While the proposed amendments primarily address operational and administrative aspects of the current Determination, BIRRR considers they cannot be viewed in isolation from the broader telecommunications transitions underway across RRR Australia.

These amendments sit within a wider policy environment where legacy technologies are being withdrawn, replacement technologies are being adopted for USO voice services, and consumer protections are being incrementally adjusted without comprehensive reform of the underlying universal service framework.

As a result, changes that may appear administrative in isolation may have significant implications for consumer protections, communications resilience and equitable access to essential services, particularly for vulnerable rural and remote consumers.

BIRRR is concerned the current approach increasingly treats major telecommunications migrations as routine technology upgrades rather than matters of consumer protection, public safety and essential communications resilience.

Approval of emerging technologies as 'USO Compliant'

BIRRR is concerned emerging technologies, including LEO satellite voice services and 4G Fixed Wireless (4GFW), have been approved and deployed as USO-compliant voice solutions before sufficient evidence existed to demonstrate they provide equivalent reliability, resilience and consumer outcomes compared to the legacy services they replace.

Telstra publicly identified Starlink-based voice services as a future "USO compliant" technology during its November 2023 Investor Day[13] presentation, prior to the commencement or completion of the Scyne Advisory voice trials and Telstra's own Starlink voice trials.

This appears inconsistent with repeated Government commitments that changes to USO arrangements would only occur where suitable replacement technologies had been properly tested and demonstrated.

As part of the 2023–2024 Better Delivery of Universal Services consultation process, DITRDCA stated:

> "*A key principle for Government is that any change to existing arrangements will only be considered if there are tested and proven alternatives to existing technologies and services.*"[14]

Similarly, then Minister for Communications Michelle Rowland stated at the National Farmers' Federation Conference on 27 October 2023:

> "*We will not make changes to USO arrangements unless there are tested and proven alternatives to existing technologies… Ultimately, any new approach must ensure robust and reliable services for all.*"[15]

However, the sequence of events surrounding deployment of Starlink Voice and 4G Fixed Wireless raises significant concerns:

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[13] *https://www.telstra.com.au/content/dam/tcom/about-us/investors/pdf-g/2023-investor-day-presentation.pdf*
[14] *https://www.infrastructure.gov.au/have-your-say/better-delivery-universal-services*
[15] *https://minister.infrastructure.gov.au/rowland/speech/national-farmers-federation-conference*

- **November 2023** — Telstra identifies Starlink Voice as a future "USO compliant" technology during Investor Day presentations
- **March 2024** — Telstra commences commercial deployment of Starlink Voice as a USO product
- **October 2024** — Closure of the 3G network and migration of approximately 4,000 NGWL USO voice services onto 4G Fixed Wireless and Starlink Voice services[16]
- **November 2024** — Scyne Advisory voice trials commence
- **July 2025** — Scyne Advisory trials conclude. At the time of this submission, no public report detailing the trial outcomes has been released.

These events indicate key migration and deployment decisions were substantially progressed before the trials intended to assess service suitability had concluded.

BIRRR is also concerned by the limited scope of publicly referenced reliability comparisons between Starlink voice services and legacy technologies. Telstra reporting comparing Starlink and copper reliability appears to rely on a very small sample size of seven locations, including metropolitan or less remote environments such as Port Melbourne, limiting the relevance of the analysis to remote and vulnerable consumer cohorts.

Many legacy copper and CAN Radio services have also experienced prolonged periods of reduced maintenance and delayed fault rectification prior to migration, raising questions regarding the appropriateness of comparing emerging technologies against ageing networks that may no longer reflect historical reliability performance when properly maintained.

Additionally, no dedicated independent suitability assessment appears to have been undertaken specifically evaluating 4G Fixed Wireless as a USO voice technology prior to the migration of thousands of NGWL consumers following closure of the 3G network.

Technical Differences Between Replacement Voice Technologies

It is important to recognise that not all replacement voice technologies provide equivalent operational characteristics, resilience, reliability or emergency communications capability.

While some modern voice technologies remain carrier-grade, quality-managed and subject to established telecommunications standards, others rely on best-effort broadband delivery models with fundamentally different dependencies and risk

[16] *Telstra CEO Letter to BIRRR February 2025 Overall, of the 6,373 NGWL services that were active at the commencement of the migration process, 2,328 services were disconnected with the customer electing to not migrate to a new Telstra-supplied service. Of the remaining services, 3,996 have been successfully migrated to services on new technologies (4GFW or Satellite Voice, powered by Starlink).*

profiles. These differences are highly relevant when assessing whether replacement technologies are genuinely suitable as primary USO-equivalent voice services for rural and remote consumers.

4G VoLTE (Voice over LTE)

4G VoLTE is a carrier-grade, internationally standardised voice technology using dedicated Quality-of-Service (QoS) managed voice bearers with prioritised voice traffic and strict latency and packet loss requirements. Importantly, the voice path is powered at the tower rather than solely at the consumer premises.

4G VoLTE remains the basis for voice modernisation in many comparable international jurisdictions and is generally more resilient to weather impacts than satellite-based services.

However, recent ACMA mobile coverage mapping reforms introducing a minimum usable signal threshold of -115 dBm RSRP raise questions regarding consumers who have already migrated onto 4G-based USO voice services but may now fall outside newly defined mapped coverage areas. The implications of these revised coverage standards for the ongoing suitability and continuity of 4G-based USO voice services remain unclear.

FTTP TC-1 VoIP (Fibre Voice)

Traffic Class-1 (TC-1) is nbn's highest-priority traffic class reserved specifically for voice services. Voice traffic is prioritised over general data traffic and subject to strict latency and network management requirements.

While TC-1 services remain dependent on consumer premises power, this was historically recognised through legislated battery backup requirements under the nbn Fibre Battery Backup Policy. Despite concerns raised by BIRRR and other stakeholders, nbn has since ceased providing battery backup arrangements for nbn Fibre To The Premises (FTTP) voice services. This is particularly concerning given nbn FTTP is only now being rolled out across many regional areas where power reliability remains highly variable. In BIRRR's view, this reflects a broader pattern of telecommunications transitions proceeding without adequate long-term planning for resilience, backup power and continuity of essential voice services. TC-1 nevertheless remains a managed carrier-grade voice service with defined prioritisation and network performance controls.

Starlink Voice (Best-Effort SIP VoIP over LEO Satellite)

By comparison, Starlink Voice operates as a best-effort SIP VoIP service delivered over the same broadband connection used for general internet traffic. There is currently no dedicated voice bearer, mandated QoS management or guaranteed voice prioritisation capability.

The service is entirely dependent on consumer premises power for both the antenna and router and remains susceptible to weather impacts, including Ku/Ka-band rain fade during heavy rainfall events.

Unlike traditional carrier-managed voice services, service continuity depends on a combination of:

- consumer premises power
- satellite availability
- network congestion
- weather conditions
- foreign-owned commercial infrastructure operating outside direct Australian regulatory control.

Starlink currently has no dedicated voice prioritisation capability comparable to traditional carrier-managed voice networks.

Emergency calling relies on the Session Initiation Protocol (SIP) application layer rather than a native mobile emergency calling framework. Unlike carrier-grade mobile voice services, there is no guaranteed automatic location functionality, mandated callback capability or priority emergency routing. There is also no publicly available minimum availability standard for the service.

Independent testing and New Zealand Commerce Commission[17] reporting identified materially higher rates of short-duration disconnections and intermittent interruptions on LEO satellite services compared with traditional fixed-line technologies, while separate resilience testing identified repeated interruption and reconnection events during operation. This raises further questions regarding the suitability of these services for critical voice applications.

nbn has also advised that voice prioritisation will not initially be available for future Amazon LEO satellite voice services. This raises significant concerns for very remote consumers with no mobile coverage who may ultimately rely on only two LEO satellite providers for both broadband and voice services, neither currently offering dedicated voice prioritisation capabilities.

The broader regulatory and sovereignty implications of relying on foreign-owned proprietary satellite platforms to deliver Australian USO voice services are also concerning. The USO is an Australian statutory consumer protection framework established under Australian law. Requiring consumers reliant on USO voice services to also comply with the commercial terms, operational settings and acceptable use policies of foreign private companies introduces a significant regulatory gap.

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17 *https://www.comcom.govt.nz/regulated-industries/telecommunications/monitoring-the-telecommunications-market/monitoring-new-zealands-broadband/*

In BIRRR's view, the Government has allowed significant technology transitions to proceed ahead of the evidence base required to support them, with insufficient weight given to the lived experience and feedback of rural and remote consumers and advocacy organisations.

Scyne Advisory Trials

DITRDCA commissioned the Scyne Advisory Trials of Voice Services[18] to assess the performance and reliability of alternative voice technologies, including LEO satellite services, in rural and remote Australia. The trials ran from November 2024 to July 2025 and were intended to examine the capability of these technologies to support voice services across a range of operating environments.

BIRRR welcomes DITRDCA undertaking independent voice service trials and acknowledges the importance of assessing how emerging technologies perform in real-world rural and remote conditions, particularly given the scale of current telecommunications transitions.

This is especially important in the context of the planned withdrawal of legacy technologies such as HCRC/CAN Radio services. These services were specifically designed for Australia's geography and dispersed population and historically provided highly resilient network-powered voice communications in areas where traditional cabling was not viable.

BIRRR is concerned public commentary surrounding LEO satellite technologies has increasingly relied on broad claims regarding "weather resistance", "99.9% reliability" and performance comparable to metropolitan fixed-line services without sufficient publicly available long-term evidence demonstrating equivalent operational resilience under Australian remote-area conditions.

For example, in reference to Voice Trial Dashboard data analysed by Scyne Advisory, DITRDCA stated:

> "*The data broadly indicated that LEOsats provide good quality voice services alongside broadband, with performance and reliability closer to metropolitan fixed services, particularly compared with geostationary satellites.*"[19]

Based on BIRRR's lived experience and feedback from rural and remote consumers, these claims do not consistently reflect actual service performance during severe weather events, prolonged outages and day-to-day operation in remote environments.

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18 *https://www.infrastructure.gov.au/media-communications/modernising-universal-telecommunications-services/trials-voice-services*

19 *Nicolle Power, DITRDCA, Comms Day Rural and Regional Forum, February 2026*

The Scyne trials primarily measured voice quality during periods where services were operational, using Mean Opinion Score (MOS) methodologies derived from network metrics such as latency, jitter and packet loss.

This approach does not appear to adequately capture periods of complete service outage or total service unavailability, particularly during severe weather events or network failures where no voice traffic is flowing and therefore no MOS measurement is generated. An outage does not appear in the quality record as a low score; it does not appear at all, creating a form of survivorship bias within the results.

BIRRR also notes the trials did not directly compare LEO satellite voice services against the operational resilience and high-availability expectations historically associated with legacy network-powered voice services such as Plain Old Telephone System (POTS) and CAN Radio, where carrier-grade reliability principles and “five nines” availability expectations have traditionally underpinned essential voice infrastructure.

At the time of this submission, no detailed public final report outlining the full trial methodology, assumptions, limitations and interpretation of results appears to have been released. This limits the ability of consumers, advocacy organisations and independent experts to properly assess the applicability of the findings, particularly given the significant policy implications associated with replacing long-standing USO voice technologies.

Importantly, BIRRR’s concerns are not directed at the accuracy of the measurements themselves, but rather whether the methodology was capable of capturing the real-world experience of complete service unavailability during outages, severe weather events and other network disruptions.

BIRRR remains concerned that policy acceptance and deployment of LEO satellite voice technologies as USO-equivalent services has progressed ahead of equivalent reliability and operational resilience being conclusively demonstrated.

Further detail regarding BIRRR’s analysis of the Scyne Advisory Trials is provided in **Appendix 1**.

Weather Impacts and Rain Fade

A key concern for BIRRR is the impact of severe weather on LEO satellite voice services.

Unlike legacy terrestrial voice services such as copper and CAN Radio, LEO satellite technologies rely on Ku-band and Ka-band radio frequencies, which are known to experience signal degradation and rain fade during heavy rainfall events. This is particularly relevant in northern Australia, where monsoonal conditions, tropical storms and high-intensity rainfall events are common.

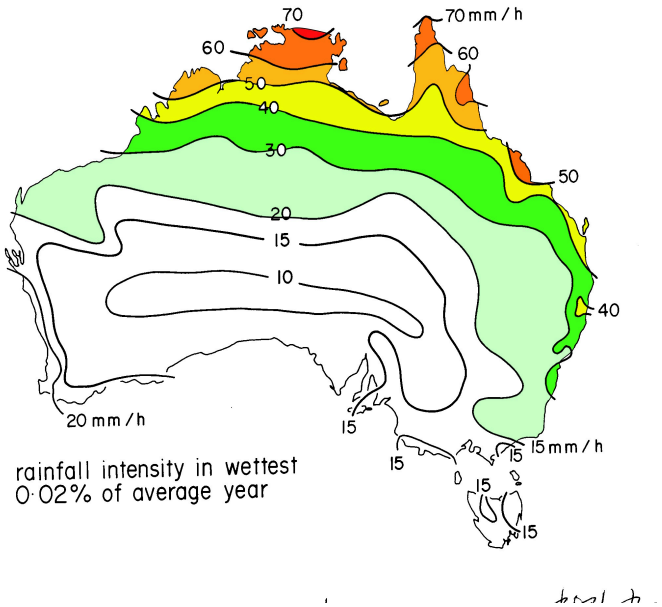


Figure 3: Rainfall intensity (mm/hr) exceeded in the wettest 0.02% of an average year[20].

The map confirms northern Australian regions, including the Top End, Gulf Country and Far North Queensland, areas where CAN Radio/HCRC services are being withdrawn and Starlink Voice deployed as a replacement technology, regularly experience rainfall intensities capable of causing measurable Ku/Ka-band signal degradation and rain fade.

While rain fade can also affect some existing satellite services, the increasing use of LEO satellite technologies as replacement voice infrastructure for formerly network-powered terrestrial services represents a significant change in the communications risk profile for rural and remote consumers.

[20] *Source: Bureau of Meteorology rainfall intensity analysis (0.02% annual exceedance probability; original monochrome rendition coloured by BIRRR for clarity), sufficient to cause measurable Ka/ Ku-band signal degradation, potentially service-terminating.*

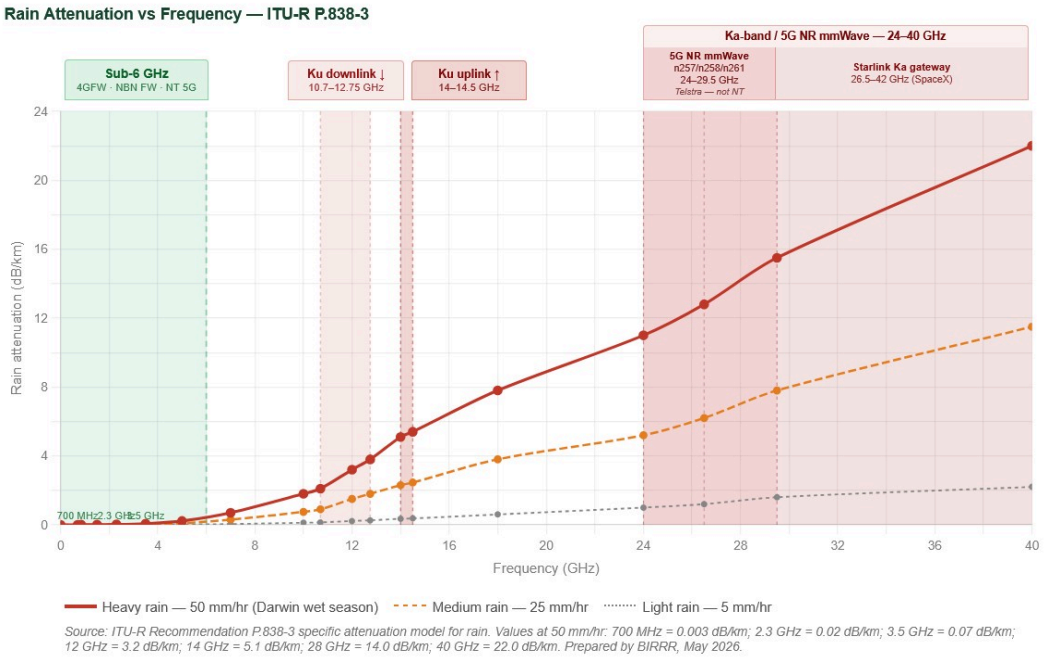


Figure 4: Rain Attenuation increases within Ku-band & Ka-band frequencies

This graphic demonstrates how rain attenuation increases significantly as frequency rises, particularly within the Ku-band and Ka-band frequencies used by LEO satellite services such as Starlink. Under heavy rainfall conditions common across northern Australia, signal degradation at these frequencies may become substantial, increasing the risk of reduced performance or service interruption during the very conditions when reliable communications are most critical.

By comparison, lower-frequency terrestrial technologies such as 4G Fixed Wireless and sub-6 GHz mobile services generally experience materially lower levels of rain-related attenuation, highlighting the fundamentally different weather resilience characteristics between terrestrial and LEO satellite communications technologies.

For many consumers migrating from technologies such as CAN Radio, LEO satellite voice services may introduce weather-related vulnerabilities that did not previously exist to the same extent. See **Appendix 5** for Case Study on rain fade impacts on Starlink in Northern territory.

BIRRR is concerned that the practical impacts of severe weather on LEO voice reliability, particularly during prolonged heavy rainfall events and emergency situations, have not yet been sufficiently tested, independently assessed or transparently communicated to consumers prior to migration.

Resilience and Redundancy

Historically, many rural and remote consumers have relied on layered telecommunications pathways that provided important redundancy during outages

and emergencies, including combinations of network-powered landlines, mobile services, fixed wireless, satellite broadband and HF radio.

BIRRR is increasingly concerned that this layered resilience is being replaced by growing reliance on a single LEO satellite ecosystem. In many remote areas, consumers may soon depend on the same underlying satellite platform for broadband, voice, mobile backhaul, Direct-to-Device (D2D) services and emergency communications.

This creates significant concentration, resilience and sovereignty risks, particularly where multiple critical communications pathways rely on the same privately owned foreign infrastructure and share common failure points.

While additional LEO providers may improve competition over time, these technologies still share many of the same operational limitations and vulnerabilities, including:

- dependence on consumer-supplied power
- weather-sensitive radio frequencies
- atmospheric interference
- congestion risks
- broader space weather impacts.

Migration of USO services is also occurring before alternative satellite ecosystems or equivalent redundancy pathways are available, increasing the risk of remote Australia becoming overly dependent on a limited number of communications platforms.

Current reliability comparisons may also oversimplify the operational differences between legacy terrestrial voice services and LEO satellite technologies. Existing network-powered voice services often provide complementary resilience to satellite broadband services because they operate independently of consumer power and do not share the same weather-related failure modes.

Replacing these layered arrangements with multiple services operating on the same LEO platform risks reducing redundancy and creating single points of failure during severe weather events, power outages or broader satellite disruptions.

BIRRR is concerned the current framework does not establish clear minimum standards for service availability, emergency communications resilience or affordability equivalent to those historically associated with network-powered PSTN services.

No replacement technology should be recognised as USO-equivalent until it has been independently demonstrated, over an appropriate period of time, to provide equivalent or better reliability, resilience and consumer outcomes under real-world

Australian conditions, including during severe weather events, prolonged outages and emergency situations.

Recommendations

BIRRR is concerned consumers are increasingly being migrated to technologies with materially different operational and reliability characteristics, including increased dependence on local power, mobile coverage and weather-sensitive satellite services, without equivalent resilience guarantees or independent consumer assurance mechanisms.

BIRRR considers future telecommunications reforms, migration frameworks and universal service arrangements must explicitly recognise the disproportionate impacts technology transitions have on vulnerable rural and remote consumers, particularly First Nations consumers, Priority Assistance customers, consumers without mobile coverage and those reliant on stand-alone power systems.

Accordingly, BIRRR makes the following recommendations.

Recommendation 1

That the Government require Telstra to pause further CAN Radio voice service migrations involving vulnerable consumers until appropriate legislative and regulatory safeguards are in place, including:

- independent oversight
- minimum backup power protections
- enforceable emergency communications standards
- clear migration support obligations.

This should include a formal management framework for Priority Assistance customers, consumers with no mobile coverage, off-grid consumers, First Nations communities and consumers reliant on medical or emergency communications services.

Recommendation 2

That proposed Amendment 3 Paragraph 7(4)(a), relating to refusal of service due to inadequate consumer-supplied power, not proceed unless enforceable consumer safeguards are established, including:

- funded backup power and resilience support
- independent escalation pathways
- clear standards governing “reasonable timeframes”
- protections ensuring no consumer is left without access to essential voice and emergency communications.

Recommendation 3

That the Government establish an independent rural and remote telecommunications consumer advisory body to inform future USO and CSG reform, telecommunications migrations and consumer protection frameworks.

Recommendation 4

That ongoing long-term funding for the Regional Tech Hub be prioritised to ensure continuity of independent consumer support during major telecommunications transitions and future universal service reform.

Recommendation 5

That Telstra's USO funding arrangements be independently reviewed, including consideration of redirecting funding toward:

- backup power and resilience measures
- support for vulnerable consumers impacted by migrations
- independent consumer support services and connectivity literacy initiatives.

Recommendation 6

That any extension of the Determination remain strictly transitional and include stronger review and accountability measures, including:

- limiting any extension to a maximum of 12 months
- preventing amendments that reduce consumer protections or expand provider refusal powers prior to broader USO reform
- reinstating a mandatory review mechanism, unless superseded by earlier reform
- requiring a formal review following major telecommunications migrations affecting more than 1,000 USO premises in any 12 month period.

Recommendation 7

That the ACMA be given responsibility for independent oversight of telecommunications migrations involving USO services, including:

- assessment of replacement technologies against agreed reliability and resilience benchmarks
- public reporting on migration outcomes
- enforcement powers for USO non-compliance, incorrect refusals of service and misleading migration communications
- consideration of mechanisms to direct financial penalties arising from telecommunications consumer protection breaches toward initiatives that improve rural and remote consumer outcomes, including independent support

services such as the Regional Tech Hub, connectivity literacy initiatives and resilience support for consumers reliant on stand-alone power systems.

Recommendation 8

That an immediate independent public review is launched into the assessment, consultation and decision-making processes underpinning the approval of Telstra's Starlink Voice Service as a USO-equivalent service. This should include whether sufficient testing, consumer consultation, international comparisons, reliability assessment and risk analysis were undertaken prior to policy and migration decisions being progressed.

Recommendation 9

That future USO and CSG reforms include stronger transparency and consultation requirements, including:

- minimum 60-day consultation periods
- direct engagement with affected rural and remote consumers
- improved transparency regarding how consumer feedback is incorporated into decision-making
- publication of clear side-by-side legislative comparison tables and plain-language consumer impact summaries.

Recommendation 10

That the Determination be referred to the Parliamentary Joint Committee on Human Rights prior to registration, including assessment of compatibility with Australia's international human rights obligations..

Recommendation 11

That consumers affected by telecommunications migrations receive stronger consumer protections, including:

- fast-tracked complaints and escalation pathways
- accurate and accessible migration communications
- protections against loss of phone numbers without informed consent
- protections against misleading disconnection practices
- minimum reliability and resilience standards
- targeted support and financial assistance where replacement technologies introduce additional costs.

Conclusion

BIRRR does not support the proposed amendments in their current form.

Without broader and more urgent USO reform, there is a significant risk universal service protections will continue to weaken, responsibility and resilience obligations will increasingly shift onto consumers, and rural and remote Australians will be left with reduced communications reliability and fewer safeguards during emergencies and outages.

Access to a standard telephone service must remain genuinely universal, reliable and safe, particularly for vulnerable consumers and those living beyond major population centres.

BIRRR urges the Government to prioritise comprehensive USO reform, strengthen independent oversight and consumer protections, and ensure telecommunications transitions do not leave rural and remote consumers worse off.

Appendix 1 – Summary of Scyne Advisory Voice Trial Limitations and Rainfall Findings

This appendix provides a simplified summary of key concerns identified in relation to the Scyne Advisory voice trials in assessing LEOSat voice capability for USO purposes.

BIRRR's concerns relate to what the methodology was capable of measuring, and importantly, what it may have failed to capture during real-world outage conditions.

The Scyne trials primarily relied on an estimated Mean Opinion Score (eMOS) methodology to assess voice quality. MOS scores are generated using network characteristics such as latency, jitter and packet loss.

However, a MOS score can only be calculated while a connection is active and voice traffic is flowing. If a service becomes completely unavailable no call can be made, no MOS score is generated and the outage period may not appear in the reported dataset at all.

This creates a significant limitation when assessing technologies susceptible to weather-related outages, including Ku-band and Ka-band satellite services. LEOSat services such as Starlink operate in frequency bands known to experience rain attenuation ("rain fade") during moderate to heavy rainfall events. As rainfall intensity increases signal quality may degrade, packet loss and latency may increase and the service may eventually fail completely. Where complete signal loss occurs, the trial methodology may record no result rather than recording a failed service event.

Independent analysis of the publicly accessible Scyne / Power BI dashboard identified repeated examples where co-located nbn Fixed Wireless or nbn Sky Muster services continued recording tests during heavy rainfall, whilst Starlink services recorded no tests at all during the same rainfall events. This pattern was particularly evident at tropical and northern trial sites.

The absence of recorded tests during severe weather events may itself indicate service unavailability. Importantly the methodology records successful or active measurement periods, it does not necessarily capture periods where no connection existed and this therefore may result in availability figures appearing artificially high.

BIRRR is concerned this creates a structural **survivorship bias** within the published results.

The issue appears most significant in tropical and high rainfall regions, including northern Australia, where heavy rainfall events occur more frequently and at greater intensity.

Humpty Doo (NT) — Zone 1 Hot Humid | Fixed Wireless vs Starlink

Above 50 mm/hr, Fixed Wireless continued recording at 55, 60, 65, 80, 110 and 140 mm/hr. Starlink recorded zero data above 50 mm/hr.

Rain mm/hr	FW Avail%	FW Tests	Starlink%	SL Tests
0	99.63	18,880	99.29	18,640
5	99.15	118	100.00	119
10	100.00	45	100.00	41
15	100.00	14	100.00	18
20	100.00	17	94.44	18
25	100.00	8	100.00	6
30	100.00	2	100.00	3
35	100.00	5	100.00	2
40	100.00	2	100.00	1
45	100.00	2	100.00	1
50	50.00	2	100.00	1
55	100.00	1	NO DATA	—
60	100.00	2	NO DATA	—
65	100.00	1	NO DATA	—
80	100.00	2	NO DATA	—
110	100.00	1	NO DATA	—
140	100.00	1	NO DATA	—

Data recorded (service active)

NO DATA Starlink recorded zero tests at a rainfall rate where Fixed Wireless recorded tests — analytical signature of complete link failure.

Ashburton (WA) — Onslow, Zone 1 Hot Humid | Sky Muster vs Starlink

A severe event row shows Sky Muster at 7.04% (71 tests) and Starlink at 1.16% (86 tests) — near-total failure of both Ka-band services.

Rain mm/hr	Sky Muster%	SM Tests	Starlink%	SL Tests
0	99.46%	19,751	99.28%	19,418
5	98.08%	52	97.92%	48
10	100.00%	18	95.83%	24
Severe event	7.04%	71 tests	1.16%	86 tests

Typical rainfall conditions

Severe event (near-total failure)

Severe event row indicates near-total failure of both Ka-band services during extreme weather conditions.

Additionally, the trial documentation indicates calls were tested in periodic 15-minute intervals rather than through continuous active monitoring. This raises further questions about whether short-duration outages, short weather events and intermittent service failures may have been underrepresented in the reported results.

BIRRR notes the trials did not appear to directly assess LEOSat services against the historical operational resilience expectations associated with legacy network-powered

voice services such as POTS or CAN Radio / HCRC. These legacy services historically provided high availability, operation during local power outages and strong performance during severe weather events.

The trials also did not appear to fully assess broader operational factors including dependence on customer premises power, prolonged outage management, restoration following natural disasters, cyclones, fires and storms and continuity of emergency communications.

BIRRR submits that the Scyne trials should not be treated as conclusive evidence that LEOSat services currently provide an equivalent level of reliability to traditional USO voice services, particularly during adverse weather conditions.

At a minimum, BIRRR considers that further analysis is required to:

- identify periods where no testing occurred due to loss of connectivity
- separately analyse tropical and high rainfall locations
- measure full outage periods as service failures
- assess real-world operational resilience during severe weather events

These issues are particularly important given the role of the USO in ensuring access to reliable communications during emergencies and natural disasters.

APPENDIX 2 - Case Study 2 Correspondence

Misleading and inaccurate information supplied by both Skymesh and Telstra during Vocus wholesale copper exit.

CASE STUDY 2: CARRIE

Carrie lives at Knapp Creek in regional Queensland and has no mobile coverage at her property. Her landline service is therefore critical for safety, emergency communications and daily connectivity.

Carrie was a SkyMesh Standard Telephone Service (STS) customer using a copper-based landline service delivered over the PSTN network. As a customer receiving a USO voice service over copper infrastructure, Carrie's service was also subject to CCO.

In October 2025, due to Vocus exit from wholesale copper services, Carrie received correspondence from SkyMesh advising that the PSTN network would be permanently shut down and that her phone service "needs to be migrated to a modern VoIP solution" and that "this is an industry-wide change across Australia". The correspondence further stated that if she did not complete the migration before 1 November 2025, her service would stop and her phone number may be lost.

When Carrie subsequently attempted to transfer her landline service to Telstra, she was advised that "Telstra no longer offers the copper option as it's being phased out" and was instead directed towards a business-grade cloud-based VoIP product using her nbn Sky Muster connection, with a quoted setup cost of $750 plus ongoing monthly charges per user. At no point was Carrie proactively offered or informed about a USO-compliant replacement service option, despite contacting the USO provider.

Carrie was aware of her rights and sought further assistance from BIRRR. After BIRRR escalated with Telstra and numerous emails and phone calls Carrie was able to have her copper landline reconnected with Telstra and keep her existing number.

The communications provided to the consumer presented migration to VoIP as mandatory and failed to clearly explain ongoing rights under the USO, including the potential availability of alternative USO voice solutions. SkyMesh advised BIRRR that approximately 500 consumers received similar correspondence.

skymesh

Important: Your Phone Service is Changing - Action Required

Hi Carrie,

We are writing to let you know about an important upcoming change to your home phone service with Skymesh.

On **1st November 2025**, the traditional phone network (PSTN) that currently delivers your home phone service will be permanently shut down by our wholesale provider. This is an industry-wide change across Australia, and your phone service needs to be migrated to a modern **VoIP (Voice over Internet Protocol)** solution.

What this means for you:

- Your phone number [redacted] will stay the same
- Your monthly charges won't change
- You may need updated equipment to continue using your home phone

Do you want to continue your service?
If you want to keep your Skymesh home phone service, **you must complete the migration before 1st November 2025**. If we do not hear from you, your service will stop on that date, and your phone number may be lost.

Medical, security, or emergency devices:
If you have devices that rely on your phone line, such as:

- Medical alert alarms or monitoring systems
- Security alarm systems
- Emergency diallers
- Safety alarms or monitoring equipment

*Please contact your medical, security, or emergency device provider **immediately** to discuss compatibility and temporary arrangements. Call forwarding to your mobile phone can be used during the transition.*

Next steps:
If you no longer need your phone service, please call our support team on 1300 662 331 as soon as possible.
If you would like to keep your service, no action is required. We will be in touch shortly with the next steps.
Our team is here to help you through this transition.

Best Regards,
The Skymesh Team

skymesh

skymesh.net.au

Call us on 1300 759 637
Postal Address
Skymesh Pty Ltd
PO Box 255
Fortitude Valley QLD 4006

---------- Forwarded message ---------
From: Prava Uppala <Pravalika.Uppala@team.telstra.com>
Date: 8 Oct 2025 at 3:51:44 pm
Subject: RE: TBTC Bris | Internet and Landline Service Availability at 990 Knaap Creek Road | CAC - 2024160725
To: [redacted]

Hi Carrie & David,

Hope you're both doing well.

I attempted to transfer your landline service number [redacted] om Skymesh to Telstra, but unfortunately Telstra no longer offers the copper option as it's being phased out. Apologies for any inconvenience this may cause.

As an alternative, we can move the service to TIPT, which is a cloud-based solution. Please note, there are associated charges: a setup fee of $750 and $24 per user, excluding GST.

Kind Regards,

Prava Uppala
Account Manager
Telstra Business Technology Centre Brisbane
Telstra Business QLD & Northern NSW

T 1800 319 659
E pravalika.uppala@team.telstra.com
W https://www.telstra.com.au/smarter-business
A 38a Douglas Street, Milton Queensland 4064

APPENDIX 3 - Misinformation - Priority Assistance

In this example, the Telstra Satellite Voice (Powered by Starlink) Critical Information Summary states that Priority Assistance is “Not available on nbn Fixed Wireless or Telstra 4G Fixed Wireless”, this is inaccurate as Priority Assistance is available on Telstra 4G Fixed Wireless services.

Priority Assistance and power

Priority Assistance

Available for diagnosed, life-threatening medical conditions where access to a Home Phone service is essential. Connection will occur within 24 hours for urban and rural areas, or 48 hours for remote areas.

This service includes professional installation of your Telstra Smart Modem, battery backup power supply or a Priority Assistance Handset if you have opted for one, and your wifi devices. Not available on nbn Fixed Wireless or Telstra 4G Fixed Wireless.

Figure: Telstra’s Satellite Voice (Powered by Starlink) ***Critical Information Summary***

CASE STUDY : HUGH

Hugh lives on a property near Dingo QLD and was migrated from Telstra’s NGWL service to Telstra 4G Fixed Wireless, during Telstra’s 3G shutdown. Under the migration arrangements for former NGWL customers, Priority Assistance eligibility was intended to continue following migration.

Following the transition, Hugh experienced ongoing difficulties attempting to have his Priority Assistance arrangements and backup power support correctly applied to his new service.

Over a period of several weeks, Hugh received conflicting and inconsistent advice from multiple Telstra representatives regarding his eligibility for an UPS. Hugh was variously advised that:

- *he was eligible for two UPS devices providing up to eight hours backup power*
- *he could purchase a UPS himself and seek reimbursement from Telstra*
- *he was not eligible for any UPS support*
- *Priority Assistance was not available because the service operated over “nbn Fixed Wireless”*
- *the technology was “incompatible” with UPS backup arrangements.*

During these discussions, Hugh repeatedly attempted to clarify that his service was Telstra 4G Fixed Wireless, not nbn Fixed Wireless, and that the service remained dependent on local 240v power to operate. Hugh also questioned why Telstra representatives were describing the service as not being “Voice over Internet” while simultaneously explaining that all new services relied on consumer-supplied power and IP-based technologies.

At one point, after spending more than four weeks attempting to resolve the matter, Hugh was again advised he was ineligible for UPS support, before the same representative ultimately agreed to send him a UPS device anyway. Hugh described the process as exhausting and confusing, with different representatives providing contradictory

explanations and no clear understanding of the technology or Priority Assistance obligations applying to his service.

BIRRR notes that Hugh was not migrated to nbn Fixed Wireless. He was migrated to Telstra's 4G Fixed Wireless and remains eligible for Priority Assistance arrangements under Telstra's USO obligations.

BIRRR has repeatedly raised concerns with Telstra regarding inaccurate and misleading information relating to Priority Assistance eligibility and backup power arrangements, including publicly available consumer materials stating:

> *"Priority Assistance is not available on nbn Fixed Wireless or Telstra 4G Fixed Wireless"*

In BIRRR's view, Hugh's experience highlights broader concerns regarding the accuracy of migration information and inconsistent understanding amongst frontline staff regarding Priority Assistance obligations and replacement technologies.

APPENDIX 4 - BIRRR Member Feedback

Chandra, Newman, W.A: *"We have no mobile coverage, so Starlink is our broadband and will now also be our voice service, which means no redundancy. When heavy rain hits our Starlink often drops out, and when our solar batteries recently failed the only communication we had was our CAN Radio landline. Without that we would have had no way to call for help. For people living remotely, a reliable backup isn't optional, it's critical."*

Sean Dillon MP, Member for Gregory, Alpha QLD: *"I use HCRC on my property and during recent weather events it was the only communication that worked. I've even had to call the Premier on it because our satellite broadband services simply don't work in heavy rain.*

Telstra cannot keep taking hundreds of millions of dollars in funding under the Universal Service Obligation while stripping away one of the only terrestrial networks that actually works in the bush. Removing HCRC will leave many families across my electorate vulnerable and without redundancy, forced to rely on a foreign-owned satellite network that simply cannot guarantee the reliability remote Australians depend on and need."

Jay, Katherine, NT: *"We live on a remote property with no mains power and no mobile coverage. HCRC is our only reliable voice service. Our Starlink regularly drops out in heavy rain and in recent months we've had packet loss of 30–80%, taking us offline for hours at a time. When that happens the kids use the HCRC to do their on-air school lessons. We rely on the HCRC to run our business, stay socially connected and check flooded creeks and monitor fires. For us and our staff it's not just old tech, it's our safety net."*

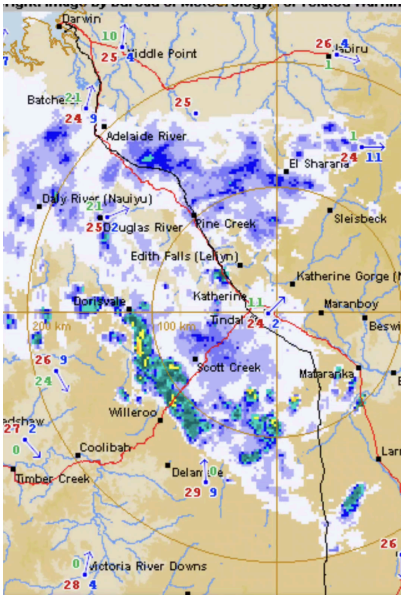
Alana, Clermont, QLD: *"With no mobile coverage and only satellite internet on our cattle station in Central Queensland, we have relied on HCRC for more than two decades as our primary telecommunications service and it has rarely failed us. When the power fails, which is a regular occurrence, and during heavy rainfall, we have been able to rest in the knowledge our phone line will be available to connect with the outside world. I hold grave fears for those of us in this situation when Telstra migrates us to a satellite voice service, without back up power that our geographical isolation will be exacerbated."*

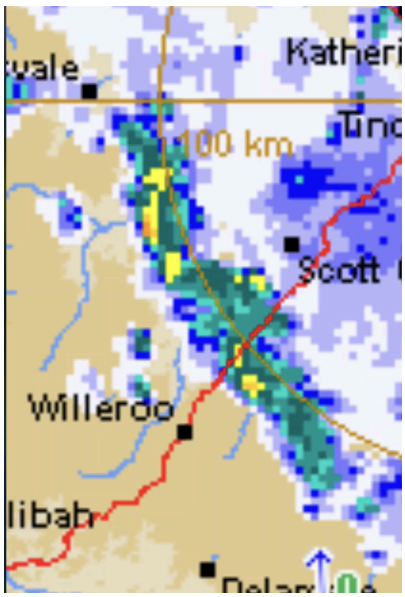
Natalie, Rolleston, QLD: *"HCRC is the only reliable form of communication for many of us living outside major regional centres. Mobile coverage here is extremely limited, we have one bar in a small area near the house with an aerial and booster, and everywhere else there's nothing. Since the switch from 3G to 4G mobile service has declined, and calls often drop out multiple times.*
Every time we have a power outage the HCRC landline is the only way we can contact the outside world. I keep an old phone plugged in just for that reason. During storms our Starlink often stops working as well, so it's hard to understand how satellite is meant to replace a system that actually works when we need it."

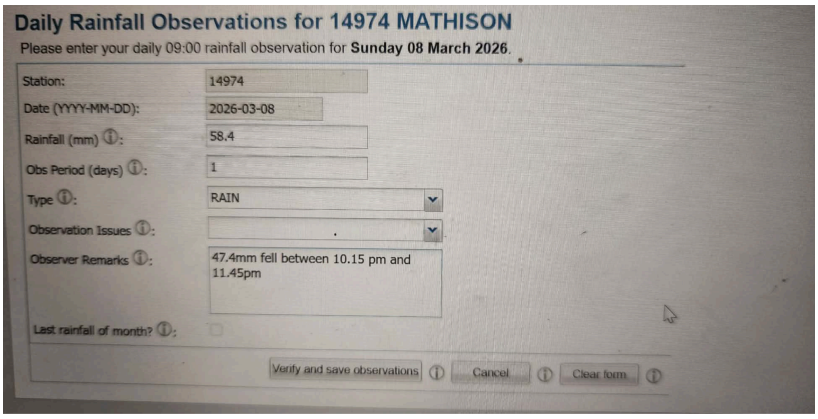
Appendix 5: Discrepancy Between Measured Availability and User Experience During Starlink Rain Event

During a significant rainfall event on 7–8 March 2026, a Starlink user at Mathison Station near Katherine in the Northern Territory reported that their device remained connected to the Starlink network but that internet services were largely unusable.

During the event, approximately 47.4 mm of rainfall was recorded over a 90-minute period. It was during this period of intense rainfall that the Starlink diagnostic data and SamKnows monitoring data analysed in this appendix were collected.







Data from the Starlink diagnostic application and a SamKnows Measuring Broadband Australia monitoring unit were analysed by BIRRR to understand the disruption.

While the SamKnows monitoring system recorded relatively high availability across most measurement intervals, Starlink diagnostic data and the user's experience indicate the service was severely degraded for an extended period.

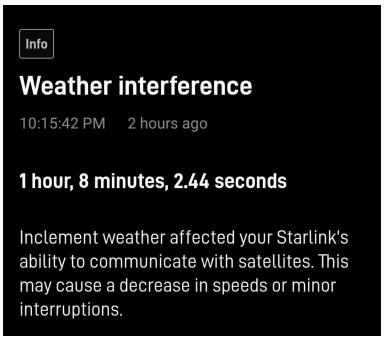
A Starlink diagnostic screenshot confirms that the terminal recorded over one hour of weather interference, demonstrating that the service was materially affected by rainfall despite Starlink's claims that the system is "weather resistant."

User Experience During the Event

Despite the Starlink terminal remaining technically connected the user was unable to access the internet, voice calls could not be made over the Starlink connection, and websites and applications failed to load or stalled. Importantly, the property's existing Telstra HCRC landline service remained operational during the same period, continuing to provide reliable voice communications.

1. Starlink recorded over one hour of weather interference.

The Starlink application recorded a Weather Interference event lasting: 1 hour, 8 minutes, 2 seconds



The Starlink diagnostic message states:

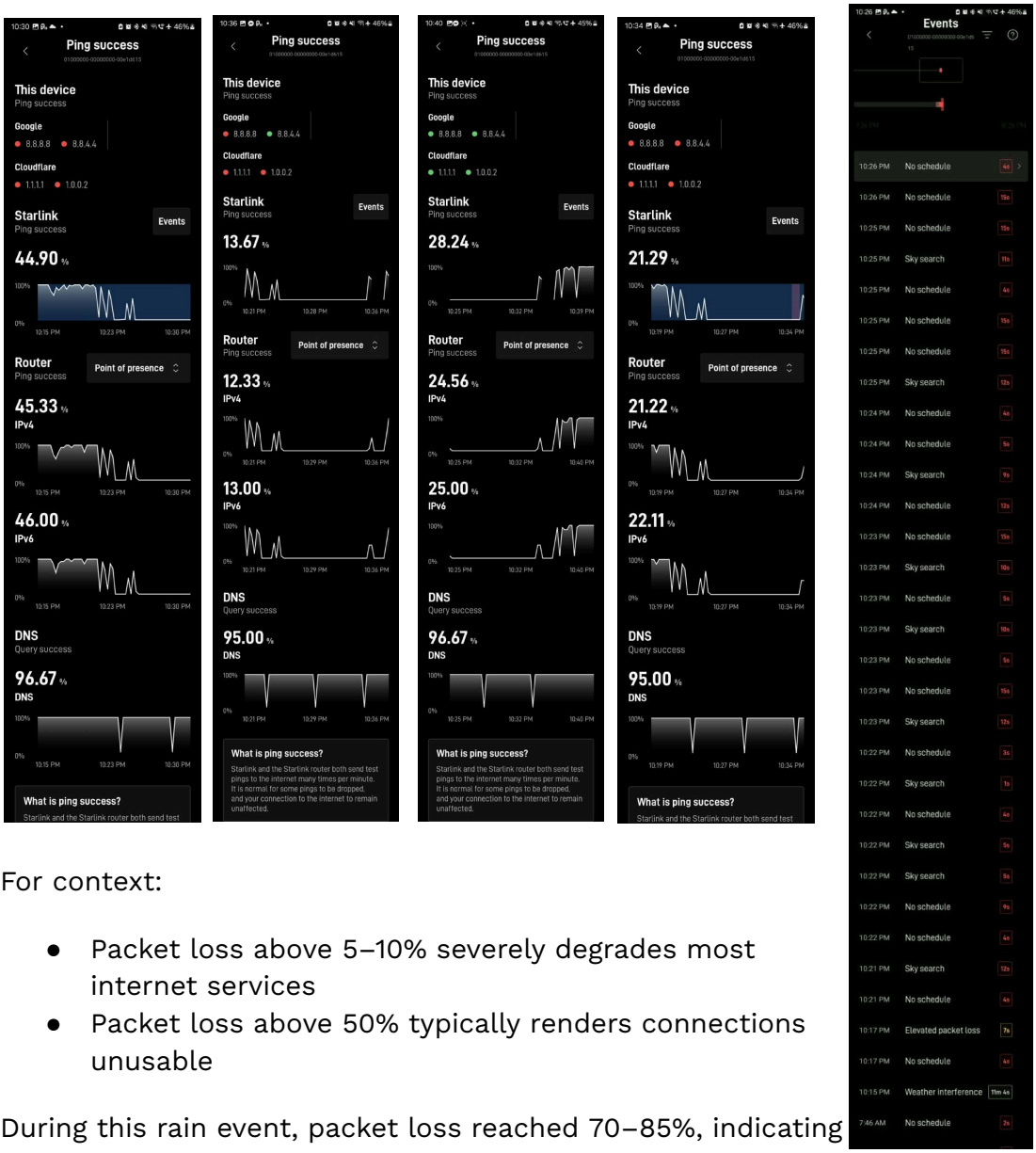
"Inclement weather affected your Starlink's ability to communicate with satellites."

This confirms that rainfall significantly degraded the satellite link. The duration indicates sustained weather-related degradation rather than a brief interruption.

2. Severe packet loss recorded during the same period

Multiple Starlink diagnostic screenshots taken during the event show extremely low ping success rates, including:

Ping Success	Packet Loss
44.9%	55% packet loss
28.2%	72% packet loss
21.2%	79% packet loss
13.6%	86% packet loss



For context:

- Packet loss above 5–10% severely degrades most internet services
- Packet loss above 50% typically renders connections unusable

During this rain event, packet loss reached 70–85%, indicating that the connection was effectively unusable for most internet applications.

3. Starlink event logs show repeated connection instability

The Starlink event log during the same period recorded multiple disruption events including:

- Weather interference
- repeated “Sky search” events
- numerous short interruptions ranging from 1–15 seconds
- elevated packet loss

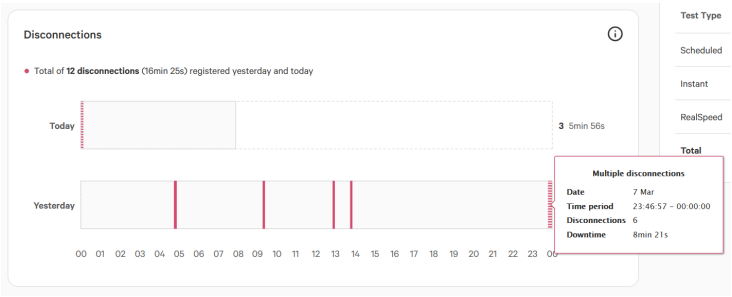
These diagnostic indicators are consistent with rain attenuation affecting the satellite signal path between the user terminal and the satellite.

4. Some monitoring systems may record availability while service is unusable

SamKnows monitoring units typically determine availability by testing whether packets can reach external endpoints. However, satellite links can remain technically connected while experiencing extreme packet loss, severe latency spikes and throughput collapse.

Under these conditions monitoring systems may still receive occasional successful ping responses, meaning the connection may be recorded as available even though normal internet use is not possible.

This creates a significant discrepancy between measured network availability and real-world usability.



Implications for Reliability Claims

Marketing claims made by Starlink suggesting “99.9% uptime” or “weather resistant” performance are not justified and should be interpreted carefully. The observed data shows that during heavy rainfall:

- the Starlink terminal remained technically connected
- monitoring tools continued to detect partial connectivity
- but packet loss reached 70–85%
- Starlink diagnostics recorded over one hour of weather interference

At these levels, the connection is effectively unusable for normal internet applications and voice calls.

This indicates that availability metrics alone may not accurately represent real-world service reliability and lived experience during adverse weather conditions.

This case study is particularly relevant given Telstra’s announcement to withdraw HCRC (CAN Radio) services and migrate affected customers to satellite-based voice services.

During this rainfall event, the existing terrestrial HCRC service continued to operate reliably while the satellite-based connection experienced significant degradation.

The case study above is reflective of many other users experience with Starlink services including BIRRR members located at Gloucester, NSW, Alpha, QLD, Rolleston QLD, Moranbah, QLD, Kununurra, W.A, Pine Creek, N.T Hughenden, QLD and Barcaldine, QLD. BIRRR has further data available on request.

LEO Satellite broadband services such as Starlink, can remain technically connected during heavy rainfall while delivering little or no usable internet connectivity. Monitoring systems based primarily on connectivity checks may therefore significantly overestimate real-world service reliability.

The diagnostic evidence shows that rain can materially affect Starlink service performance, even when monitoring systems continue to record partial connectivity.